

## **AMENDMENTS**

### **In the Claims:**

Claims 1-22 (Cancelled)

23. **(Currently Amended)** A vaginal indwelling thermometer for use in the vagina of a subject mammal, the thermometer comprising:
- a housing enclosing:
    - a temperature sensing means which generates data indicative of the *per vaginam* temperature of the subject mammal; **[[and]]**
    - a temperature recording means integral with the temperature sensing means, wherein the temperature recording means records temperature data generated by the temperature sensing means,
    - a removal means associated with said housing, and**
    - a means for connecting said thermometer to means for reading and interpreting said recorded data, wherein said means for connecting is configured to be connected to said means for reading and interpreting said recorded data when said thermometer is removed from said vagina of said subject mammal.**
- wherein the vaginal indwelling thermometer is configured to be left in **[[a]] said** vagina of **[[a]] said** subject mammal for a long period of time without causing discomfort to said subject and without being easily lost.
24. **(Previously Presented)** An indwelling thermometer according to claim 23, wherein the temperature sensing means is an electronic, chemical or mechanical temperature sensing means.
25. **(Previously Presented)** An indwelling thermometer according to claim 23, wherein the temperature sensing means comprises a thermocouple linkage or a thermistor.

26. (Previously Presented) An indwelling thermometer according to claim 23, wherein the housing comprises a biocompatible material.
27. **(Currently Amended)** An indwelling thermometer according to claim 26, wherein ~~the housing~~ **the housing** is formed from a material selected from the group consisting of acrylonitrile-butadiene-styrene terpolymer, copolyester elastomer, ethylene acrylic acid, ethylene methylacrylate, ethylene-vinyl-acetate, high-density polyethylene, high-impact polystyrene, liquid crystal polymer, low-density polyethylene, linear low-density polyethylene, poly(butylene terephthalate), polycarbonate, polycarbonate, alloy/blend, polycarbonate-PET alloy/blend, polyethylene, polyetherimide, poly(ethylene terephthalate), polypropylene, poly(phenylene oxide), polyurethane, polyvinyl chloride, styrene acrylonitrile, styrene block copolymer, syndiotactic polystyrene, thermoplastic elastomer, thermoplastic olefin, thermoplastic urethane, ultra low-density polyethylene, very low-density polyethylene, ~~Silicone, Biodegradable Copolymers Copolymer Coatings, Pseudo-Poly(Amino-Acids), Ceramic Composites, Thermoplastic-Fiber Composites, pyrolytic carbon and Pyrolite~~ **silicone, biodegradable copolymers, copolymer coatings, pseudo-poly(amino-acids), ceramic composites, thermoplastic-fiber composites, pyrolytic carbon and pyrolite.**
28. (Previously Presented) An indwelling thermometer according to claim 23, wherein the temperature sensing means is configured to record data every 20 minutes.
29. (Previously Presented) An indwelling thermometer according to claim 23, wherein said subject mammal is human.

30. (Previously Presented) An indwelling thermometer according to claim 23, wherein the thermometer is configured to be worn *per vaginam* for at least one entire menstrual cycle.
31. (Currently Amended) An indwelling thermometer according to claim 26, wherein the thermometer is configured to be used to determine ovulation in the subject mammal, and wherein said means for reading and interpreting said recorded data is configured to read said recorded data and to interpret a pre-ovulation temperature spike associated with ovulation as indicative of ovulation.
32. (Withdrawn) A method of determining ovulation in a subject mammal, the method comprising:  
providing in a vagina of a subject mammal a vaginal indwelling thermometer in said subject mammal, wherein the thermometer comprises temperature sensing means which generates data indicative of the *per vaginam* temperature of the subject mammal, and temperature recording means integral with the temperature sensing means;  
removing said thermometer from said vagina of said subject mammal, and  
reading the temperature data recorded by said recording means to determine an ovulation-associated temperature spike from said recorded data.
33. (Withdrawn) A method according to claim 32, wherein said thermometer is maintained in said vagina for at least one week.
34. (Withdrawn) A method of determining infection in a subject mammal, the method comprising:  
providing in an ear or vagina of a subject mammal an in-ear or vaginal indwelling thermometer, wherein the thermometer comprises temperature sensing means which generate data indicative of the core body temperature of

the subject mammal, and temperature recording means integral with the temperature sensing means and which record temperature data generated by the temperature sensing means;

removing said thermometer from said subject mammal; and

reading the temperature data recorded by said recording means to determine an increase in temperature attributable to infection from said recorded data.

35. **(Withdrawn)** A method according to claim 34, wherein wherein said thermometer is maintained in said vagina or ear for at least one week.

36. **(Currently Amended)** A device for the prediction of ovulation in a subject mammal, the device comprising :

a housing configured to be left in a vagina of said subject mammal for a long period of time without causing discomfort to said subject and without being easily lost;

a temperature sensing means located within said housing for generating data indicative of the *per vaginam* temperature of the subject mammal;

a temperature recording means located within the housing which records the temperature data generated by the temperature sensing means;

a removal means associated with said housing; and

a means for connecting said device, once removed from said vagina of said subject mammal, to means for reading and interpreting said recorded data, wherein said means for connecting is configured to be connected to said means for reading and interpreting said recorded data when said thermometer is removed from said vagina of said subject mammal,

wherein said means for reading and interpreting said recorded data is configured to read said recorded data and to interpret a pre-ovulation temperature spike associated with ovulation as indicative of ovulation,

wherein said device is configured to be worn *per vaginam* for at least one complete menstrual cycle.

37. (Previously Presented) A device according to claim 36, wherein said temperature sensing means is an electronic, chemical or mechanical temperature sensing means.
38. (Previously Presented) A device according to claim 36, wherein said temperature sensing means comprises a thermocouple linkage or a thermistor.
39. (Previously Presented) A device according to claim 36, wherein said subject mammal is human.
40. (Previously Presented) A device according to claim 36, wherein said housing comprises a biocompatible material.
41. **(Currently Amended)** A device according to claim ~~[[39]]~~ **40**, wherein said housing is formed from a material selected from the group consisting of acrylonitrile-butadiene-styrene terpolymer, copolyester elastomer, ethylene acrylic acid, ethylene methacrylate, ethylene-vinyl-acetate, high-density polyethylene, high-impact polystyrene, liquid crystal polymer, low-density polyethylene, linear low-density polyethylene, poly(butylene terephthalate), polycarbonate, polycarbonate, alloy/blend, polycarbonate-PET alloy/blend, polyethylene, polyetherimide, poly(ethylene terephthalate), polypropylene, poly(phenylene oxide), polyurethane, polyvinyl chloride, styrene acrylonitrile, styrene block copolymer, syndiotactic polystyrene, thermoplastic elastomer, thermoplastic olefin, thermoplastic urethane, ultra low-density polyethylene, very low-density polyethylene, ~~Silicone, Biodegradable Copolymers Copolymer Coatings, Pseudo-Poly(Amino-Acids), Ceramic Composites, Thermoplastic Fiber Composites, pyrolytic carbon and Pyrolite~~ **silicone, biodegradable copolymers, copolymer coatings, pseudo-poly(amino-**

**acids), ceramic composites, thermoplastic-fiber composites, pyrolytic carbon and pyrolite.**

42. (Previously Presented) A device according to claim 36, wherein said temperature sensing means is configured to record data every 20 minutes.
43. **(Withdrawn)** A method of determining ovulation in a subject mammal, the method comprising:
- providing in a vagina of a subject mammal a vaginal indwelling device in said subject mammal, wherein the device comprises a temperature sensing means which is configured to generate data indicative of the *per vaginam* temperature of the subject mammal, and a temperature recording means integral with the temperature sensing means;
  - removing said device from said vagina of said subject mammal; and
  - reading the temperature data recorded by said recording means to determine a pre-ovulation temperature spike from said recorded data.
44. **(Withdrawn – Currently Amended)** A method according to claim ~~[[42]]~~ **43**, wherein said thermometer is maintained in said vagina for at least one week.
45. **(Currently Amended)** A device for the detection of infection in a subject mammal, the device comprising :
- a housing configured to be left in an ear or a vagina of said subject mammal for a long period of time without causing discomfort to said subject and without being easily lost;
  - a temperature sensing means located within said housing for generating data indicative of the core body temperature of the subject mammal;
  - a temperature recording means located within the housing which record the temperature data generated by the temperature sensing means;
  - a removal means associated with said housing; and

a means for connecting said device, once removed from said ear or vagina of said subject mammal, to means for reading and interpreting said recorded data, wherein said means for connecting is configured to be connected to said means for reading and interpreting said recorded data when said thermometer is removed from said ear or vagina of said subject mammal,

wherein said means for reading and interpreting said recorded data is configured to read said recorded data and to interpret an increase in temperature attributable to infection as indicative of the presence of infection.

46. **(Currently Amended)** A device according to claim ~~[[44]]~~ 45, wherein said temperature sensing means is an electronic, chemical or mechanical temperature sensing means.
47. **(Currently Amended)** A device according to claim ~~[[44]]~~ 45, wherein said temperature sensing means comprises a thermocouple linkage or a thermistor.
48. **(Currently Amended)** A device according to claim ~~[[44]]~~ 45, wherein said subject mammal is human.
49. **(Currently Amended)** A device according to claim ~~[[44]]~~ 45, wherein said housing comprises a biocompatible material.
50. **(Currently Amended)** A device according to claim ~~[[48]]~~ 49, wherein said housing is formed from a material selected from the group consisting of acrylonitrile-butadiene-styrene terpolymer, copolyester elastomer, ethylene acrylic acid, ethylene methacrylate, ethylene-vinyl-acetate, high-density polyethylene, high-impact polystyrene, liquid crystal polymer, low-density polyethylene, linear low-density polyethylene, poly(butylene terephthalate),

polycarbonate, polycarbonate, alloy/blend, polycarbonate-PET alloy/blend, polyethylene, polyetherimide, poly(ethylene terephthalate), polypropylene, poly(phenylene oxide), polyurethane, polyvinyl chloride, styrene acrylonitrile, styrene block copolymer, syndiotactic polystyrene, thermoplastic elastomer, thermoplastic olefin, thermoplastic urethane, ultra low-density polyethylene, very low-density polyethylene, ~~Silicone, Biodegradable Copolymers Copolymer Coatings, Pseudo-Poly(Amino-Acids), Ceramic Composites, Thermoplastic-Fiber Composites, pyrolytic carbon and Pyrolite~~ silicone, biodegradable copolymers, copolymer coatings, pseudo-poly(amino-acids), ceramic composites, thermoplastic-fiber composites, pyrolytic carbon and pyrolite.

51. **(Currently Amended)** A device according to claim ~~[[44]]~~ **45**, wherein said temperature sensing means is configured to record data every 20 minutes.
52. **(Withdrawn)** A method of determining infection in a subject mammal, the method comprising:
  - providing in an ear or vagina of a subject mammal an in-ear or a vaginal indwelling device in said subject mammal, wherein the device comprises temperature sensing means which generates data indicative of the core body temperature of the subject mammal, and temperature recording means integral with the temperature sensing means and which record temperature data generated by the temperature sensing means;
  - removing said device from said ear or said vagina of said subject mammal; and
  - reading the temperature data recorded by said recording means to determine an increase in temperature attributable to infection from said recorded data.



53. **(Withdrawn – Currently Amended)** A method according to claim **[[51]] 52**, wherein said thermometer is maintained in said ear or vagina for at least one week.